

Appl. No. 10/077,302
Reply to Office action of 01/29/2004

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REMARKS/ARGUMENTS

In reply to the Office Action mailed January 29, 2004, Applicants have amended claims 1 and 4, canceled claim 10 and withdrawn claim 19.

Pending claims 1-18 and 20 (claim 19 is withdrawn from consideration) stand rejected under 35 U.S.C. 102(b) and 103(a) primarily based upon Ram et al., U.S. Patent 5,846,696. Dauber et al., U.S. Patent 5,593,482 is cited with respect to claims 10-11, 15 and 18. The Ram et al. patent is cited for disclosing an adsorbent material comprising a zeolite that is held in a polymeric matrix. It is further cited as teaching using the adsorbent material to remove contaminants and water vapor from an enclosed space. Ram et al. is cited as teaching the use of polyolefins which may be hydrophobic. The Dauber et al. patent is cited as teaching that adsorbent materials may be formed into multiple layers or a structure that may comprise filter layers. The Examiner further states that since the layers are all different the structure would inherently be asymmetric. The Dauber et al. patent is further cited as teaching multi-layered structures which may further comprise filter materials and that it would have been obvious to employ such filter layers within the Ram et al. teachings.

Applicants respectfully disagree with the Examiner's interpretation of the prior art especially in relationship to the claims of the present invention. In order to narrow the issues and to better distinguish the present invention from the prior art, the limitation of claim 10 has been incorporated within claim 1 (claim 10 has now been cancelled). Claim 4 has been corrected with a period added to the end of the sentence.

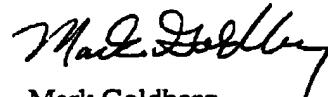
Applicants now claim a uniform adsorbent sheet having an asymmetric structure and further have narrowed the claim to specify that a single sheet of such a uniform adsorbent sheet has an asymmetric structure. The Examiner has cited Dauber et al. as teaching that adsorbent materials may be formed into multi-layered structures which may further comprise filter materials and that since the layers are all different, the structure would inherently be asymmetric. Dauber is also cited as teaching that incorporation of filter materials enhances the ability of the adsorbents to further entrap particulate materials. The Examiner then states that it would have been obvious to have incorporated multiple layers including filter layers into the adsorbent of Ram et al. A review of the Dauber et al. patent makes it clear that Dauber was providing a multiple layer structure comprising an adhesive layer, an adsorbent layer and a filtering layer. There is at least one significant difference between the present invention and Dauber's adsorbent assembly. In the present invention, as now claimed, the asymmetric sheets are single sheets in which the sheet is manufactured in a particular manner in which one side of the sheet is the polymer side which can be attached to a structure while the other side has the majority of the adsorbent material for removal of gaseous impurities. This is a significantly different structure than the type of structure taught by Dauber. Furthermore, the combination of the teachings of Ram and Dauber fail to teach the single sheet, asymmetric structure of the present invention.

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Applicants respectfully request reconsideration of the rejection of remaining claims 1-9, 11-18 and 20 based upon the amendments of the claims and the above remarks. The Examiner may contact applicants' representative to resolve any questions regarding this application.

Respectfully submitted,



Mark Goldberg
Attorney for Applicants
Reg. No. 29,921
(847) 391-2355 (phone)
(847) 391-2387 (fax)

James W. Hellwege
Registration No. 28,808
Washington Counsel (703) 205-8021

JCP/gm